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## Heart Failure and Cardiomyopathies

## HYPERGLYCEMIA ON HOSPITAL ADMISSION IS ASSOCIATED WITH EARLY READMISSION FOR HEART FAILURE

Poster Contributions

Poster Hall B1

Saturday, March 14, 2015, 10:00 a.m.-10:45 a.m.

Session Title: Many Faces of Heart Failure

Abstract Category: 14. Heart Failure and Cardiomyopathies: Clinical

Presentation Number: 1113-228

Authors: *Amit Bahja, Naga Venkata Pothineni, Jawahar Mehta, University of Arkansas for Medical Sciences, Little Rock, AR, USA***Background:** The relationship between elevated admission glucose and early readmission for heart failure is not known.**Methods:** In a retrospective cohort design, hospital admissions to the University of Arkansas Medical Center over a 5 year period were reviewed using an administrative data base. Early readmissions were classified as those occurring within 30 days of hospital discharge. Data from the index hospital admission was used for statistical analysis while subsequent visits were censored. Hyperglycemia was defined as an admission Random Blood Glucose value of greater than 200mg/dl. Baseline variables were compared using Chi-square and Student's t-test. Stratification and multivariable regression was used to determine predictors of early readmission.**Results:** 1314 patients met the inclusion criteria, of which 656 had readmissions within 30 days. The mean age was 62 years, 48% were women. The average length of stay was 6.5 days. In univariate analysis, the early readmission group had a higher proportion of women and of insulin use (table 1). Hyperglycemia on admission was associated with 45% higher odds of early readmission (OR 1.45; 95% CI 1.05-1.96).**Conclusion:** Hyperglycemia as measured by a Random Blood Glucose at hospital admission is associated with early hospital readmission for heart failure. The use of this universally available metric can help identify patients at higher risk of early readmissions.

	Early (<30 days) N=656	Late/No Readmission N=658	p-value
Age (years)	61.8	60.7	
Gender (Female, %)	51.7	46.1	0.04
Ethnicity (Caucasian, %)	56	59	
LOS (days)	6.86	6.17	
Hyperglycemia (>200mg/dl)	105	77	0.03
Admission glucose (mg/dl)	141	139	
Creatinine	1.98	1.8	
Medications (%)			
Beta-blockers	39.5	39.2	
ACE-Inhibitors	53	55.6	
ARB	1.7	1.5	
Statins	61	65	
Insulin	22.9	17.5	0.01
Metformin	18.1	18.7	
Aldactone	34.3	31.9	